

Abstract of the Disclosure

VARIABLE VALVE ACTUATION CONTROL FOR OPERATION AT
ALTITUDE

A method of controlling a variable valve actuation system for an engine is provided. A cam assembly is operated to move an intake valve between a first position and a second position. A parameter indicative of an altitude at which the engine is operating is sensed. A first lookup map is accessed to determine a desired air-to-fuel ratio when the sensed parameter indicates that the engine is operating at an altitude below a first predetermined value. A second lookup map is accessed to determine a desired air-to-fuel ratio when the sensed parameter indicates that the engine is operating at an altitude above the first predetermined value. A desired valve actuation period is determined based on the determined air-to-fuel ratio. The intake valve is prevented from returning to the first position until the end of the determined valve actuation period.